

Environmental Health Department

Linda Turkatte, REHS, Director

Kasey Foley, REHS, Assistant Director

PROGRAM COORDINATORS
Robert McClellon, REHS
Jeff Carruesco, REHS, RDI
Willy Ng, REHS
Muniappa Naidu, REHS
Michael Kith, REHS

July 10, 2018

System No. 3902183

Dan R. Costa Inc. Attn: Dan R. Costa 1269 Spring Creek Drive Ripon CA 95366

Water System: Dan R. Costa Inc., 17239 E. Louise Ave.

CITATION NO. 01_69_18C_024
TOTAL COLIFORM MAXIMUM CONTAMINANT LEVEL VIOLATION
FOR June, 2018

Enclosed is a Citation issued to the Dan R. Costa Inc. (hereinafter "Dan R. Costa Inc.") public water system.

The Dan R. Costa Inc. will be billed at the San Joaquin County Environmental Health Department's (hereinafter "EHD") hourly rate (currently at \$152 per hour) for the time spent on issuing this Citation. California Health and Safety Code, Section 116595, provides that a public water system must reimburse the local primacy agency (EHD) for actual costs incurred by the EHD for specified enforcement actions, including but not limited to, preparing, issuing and monitoring compliance with a citation.

Any person who is aggrieved by a citation issued by the EHD may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the citation Petitions must be received by the State Water Board within 30 calendar days of the issuance of the citation. The date of issuance is the date when the EHD mails or serves a copy of the citation, whichever occurs first. If the 30th day falls on a Saturday, Sunday, or state holiday, the petition is due the following business day. Petitions must be received by 5:00 p.m. Information regarding filing petitions may be found at: http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml"

If you have any questions regarding this matter, please contact Navjot Sahota of my staff at (209) 468-3178 or nsahota@sjcehd.com.

Sincerely,

Linda Turkatte, REHS, Director

Krida Turhate

San Joaquin County Environmental Health Department

Enclosures

1	Citation No. 01_69_18C_02
2	
3	COUNTY OF SAN JOAQUIN
4	ENVIRONMENTAL HEALTH DEPARTMENT
5	DRINKING WATER PROGRAM
6	
7	Name of Public Water System: Dan R. Costa Inc.
8	Water System No: 3902183
9	
10 11	Attention: Dan R. Costa Inc. 1269 Spring Creek Drive
12	Ripon CA 95366
13	
14	
15	Issued: July 10, 2018
16	
17	CITATION FOR NONCOMPLIANCE
18	TOTAL COLIFORM MAXIMUM CONTAMINANT LEVEL VIOLATION
19	CALIFORNIA CODE OF REGULATIONS, TITLE 22, SECTION 64426.1
20	June, 2018
21	
22	The California Health and Safety Code (hereinafter "CHSC"), Section 116330
23	allows the State Water Resources Control Board (hereinafter "State Board")
24	to delegate primary responsibility for the administration and enforcement of
25	the Safe Drinking Water Act (hereinafter "SDWA") to the San Joaquin County
26	Environmental Health Department (hereinafter "EHD") for public water
27	systems located in San Joaquin County. CHSC Section 116650 authorizes
28	the EHD to issue a citation to a public water system when the EHD determines
29	that the public water system has violated or is violating the SDWA, (CHSC,

1 Division 104, Part 12, Chapter 4, commencing with Section 116270), or any regulation, standard, permit, or order issued or adopted thereunder. 2 3 The EHD hereby issues this citation pursuant to Section 116650 of the CHSC 4 5 to the Dan R. Costa Inc. Water System (hereinafter "Dan R. Costa Inc.") for violation of CHSC, Section 116555(a)(1) and California Code of Regulations 6 (hereinafter "CCR"), Title 22, Section 64426.1. 7 8 APPLICABLE AUTHORITIES 9 10 CHSC 116555, in relevant part: 11 (a) Any person who owns a public water system shall ensure that the system 12 does all of the following: 13 14 (1) Complies with primary and secondary drinking water standards. (2) Will not be subject to backflow under normal operating conditions. 15 (3) Provides a reliable and adequate supply of pure, wholesome, healthful. 16 and potable water. 17 (4) Employs or utilizes only water treatment operators that have been certified 18 by the state board at the appropriate grade. 19 (5) Complies with the operator certification program established pursuant to 20 Article 3 (commencing with Section 106875) of Chapter 4 of Part 1. 21 22 (b) Any person who owns a community water system or a nontransient noncommunity water system shall do all of the following: 23 24 (1) Employ or utilize only water distribution system operators who have been 25 certified by the state board at the appropriate grade for positions in 26 responsible charge of the distribution system. (2) Place the direct supervision of the water system, including water treatment 27

28

plants, water distribution systems, or both under the responsible charge of an

operator or operators holding a valid certification equal to or greater than the 1 2 classification of the treatment plant and the distribution system. 3 CCR, Title 22, §64426.1. Total Coliform Maximum Contaminant Level 4 (MCL), in relevant part: 5 (a) Results of all samples collected in a calendar month pursuant to Sections 6 7 64423, 64424, and 64425 that are not invalidated by the State Board or the 8 laboratory shall be included in determining compliance with the total coliform MCL. Special purpose samples such as those listed in section 64421(b) and samples collected by the water supplier during special investigations shall not 10 11 be used to determine compliance with the total coliform MCL. (b) A public water system is in violation of the total coliform MCL when any of 12 the following occurs: 13 (1) For a public water system which collects at least 40 samples per month. 14 more than 5.0 percent of the samples collected during any month are total 15 coliform-positive; or 16 (2) For a public water system which collects fewer than 40 samples per month, 17 18 more than one sample collected during any month is total coliform-positive; or (3) Any repeat sample is fecal coliform-positive or E. coli-positive; or 19 (4) Any repeat sample following a fecal coliform-positive or E. coli-positive 20 21 routine sample is total coliform-positive. (c) If a public water system is not in compliance with paragraphs (b)(1) through 22 23 (4), during any month in which it supplies water to the public, the water supplier shall notify the State Board by the end of the business day on which 24 this is determined, unless the determination occurs after the State Board 25 office is closed, in which case the supplier shall notify the State Board within 26

27

28

24 hours of the determination. The water supplier shall also notify the

consumers served by the water system. A Tier 2 Public Notice shall be given

for violations of paragraph (b)(1) or (2), pursuant to section 64463.4. A Tier 1 Public Notice shall be given for violations of paragraph (b)(3) or (4), pursuant to section 64463.1.

STATEMENT OF FACTS

The Dan R. Costa Inc. is classified as a Transient Non-Community water system serving six (6) connections for a population of 25+ employees and 4 residents. The EHD received laboratory results for nine (9) bacteriological samples collected during June, 2018 from the Dan R. Costa Inc.. All samples were analyzed for the presence of total coliform bacteria. Nine (9) of the nine (9) samples analyzed were positive for total coliform bacteria. None of the total coliform positive samples showed the presence of fecal coliform or *Escherichia coli* (*E. coli*) bacteria.

DETERMINATION

CCR, Title 22, Section 64426.1, Total Coliform Maximum Contaminant Level (MCL) states that a public water system is in violation of the total coliform MCL if it collects fewer than 40 bacteriological samples per month and if more than one sample collected during any month is total coliform-positive.

The Dan R. Costa Inc. took fewer than 40 bacteriological samples during June, 2018. The results of five (5) routine samples and four (4) repeat samples were total coliform positive. Therefore, the EHD has determined that the Dan R. Costa Inc. violated CCR, Title 22, Section 64426.1 during June, 2018.

DIRECTIVES

The Dan R. Costa Inc. is hereby directed to take the following actions:

11

13

14

15

16

17

18

19

20 21 22

23

24

25

26

27

28

29

7.	Pursuant	to	CCR,	Title	22,	Section	64424(d)	, coll	ect	and	have
	analyzed	for	total c	oliforn	n bad	cteria <u>fiv</u>	e (5) rout	ine b	act	eriolo	gica
	samples	on (or befor	re July	/ 31,	2018.					

8. Pursuant to CCR, Title 22, Section 64469(a), submit analytical results of all sample analyses completed in a calendar month to the EHD no later than the tenth day of the following month.

All submittals required by this Citation shall be submitted to the EHD at the following address:

San Joaquin County Environmental Health Department
Small Public Water Systems Program

1868 E. Hazelton Avenue
Stockton, CA 95205

Fax: (209) 468-0333

The EHD reserves the right to make such modifications to this Citation as it may deem necessary to protect public health and safety. Such modifications may be issued as amendments to this Citation and shall be effective upon issuance.

Nothing in this Citation relieves the Dan R. Costa Inc. of its obligation to meet the requirements of the California SDWA (CHSC, Division 104, Part 12, Chapter 4, commencing with Section 116270), or any regulation, standard, permit or order issued or adopted thereunder.

1 /

PARTIES BOUND

This Citation shall apply to and be binding upon the Dan R. Costa Inc., its owners, shareholders, officers, directors, agents, employees, contractors, successors, and assignees.

SEVERABILITY

The directives of this Citation are severable, and the Dan R. Costa Inc. shall comply with each and every provision thereof notwithstanding the effectiveness of any provision.

FURTHER ENFORCEMENT ACTION

The California SDWA authorizes the EHD to: issue a citation with assessment of administrative penalties to a public water system for violation or continued violation of the requirements of the California SDWA or any regulation, permit, standard, citation, or order issued or adopted thereunder including, but not limited to, failure to correct a violation identified in a citation or compliance order. The California SDWA also authorizes the EHD to take action to suspend or revoke a permit that has been issued to a public water system if the public water system has violated applicable law or regulations or has failed to comply with an order of the EHD, and to petition the superior court to take various enforcement measures against a public water system that has failed to comply with an order of the EHD. The EHD does not waive any further enforcement action by issuance of this Citation.

frida Turballe

7-11-2018

Linda Turkatte, REHS, Director

Date

San Joaquin County Environmental Health Department

		Citation No. 01_69_18C_024
1		
2	Appendices (3):
3	1.	Notification Template and Instructions
4	2.	Compliance Certification Form
5	3.	Positive Total Coliform Investigation Report Form
6		
7		

APPENDIX 1. NOTIFICATION TEMPLATE

Instructions for Tier 2 Unresolved Total Coliform Notice Template

Template Attached

Since exceeding the total coliform bacteria maximum contaminant level is a Tier 2 violation, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation [California Code of Regulations, Title 22, Chapter 15, Section 64463.4(b)]. Persistent total coliform problems can be serious. Each water system required to give public notice must submit the notice to the Department for approval prior to distribution or posting, unless otherwise directed by the Department [64463(b)].

Notification Methods

You must use the methods summarized in the table below to deliver the notice to consumers. If you mail, post, or hand deliver, print your notice on letterhead, if available.

If You Are a	You Must Notify Consumers by	and By One or More of the Following Methods to Reach Persons Not Likely to be Reached by the Previous Method					
Community	Mail or direct delivery (a)	Publication in a local newspaper					
Water System		Posting (b) in public places served by the					
[64463.4(c)(1)]		water system or on the Internet					
1000 X 100 X		Delivery to community organizations					
Non-Community	Posting in conspicuous	Publication in a local newspaper or					
Water System	locations throughout the	newsletter distributed to customers					
[64463.4(c)(2)]	area served by the water	Email message to employees or					
10 10 10 10 10 10 10 10 10 10 10 10 10 1	system ^(b)	students					
		Posting ^(b) on the Internet or intranet					
	1987	Direct delivery to each customer					

⁽a) Notice must be distributed to each customer receiving a bill including those that provide their drinking water to others (e.g., schools or school systems, apartment building owners, or large private employers), and other (1) to which water is delivered by the water system.

The notice attached is appropriate for the methods described above. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects and notification language in italics unchanged. This language is mandatory [64465].

Multilingual Requirement

<u>Spanish.</u> Each public notice must contain information in Spanish regarding (1) the importance of the notice or (2) contain a telephone number or address where Spanish-speaking residents may contact the water system to obtain a translated copy of the public notice or assistance in Spanish.

<u>Non-English Speaking Groups Other than Spanish-Speaking.</u> For each group that exceeds 1,000 residents or 10% of the residents in the community served, whichever is less, the public notice must (1) contain information in the appropriate language(s) regarding the importance of the notice or (2) contain a telephone number or address where such residents may contact the water system to obtain a translated copy of the notice or assistance in the appropriate language.

25-plus Served

⁽b) Notice must be posted in place for as long as the violation or occurrence continues, but in no case less than seven days.

APPENDIX 1. NOTIFICATION TEMPLATE

Make sure it is clear who is served by your water system -- you may need to list the areas you serve.

Description of the Violation

The description of the violation and the MCL vary depending on the number of samples you take. The following table should help you complete the second paragraph of the template.

<u>If You Take Fewer Than 40 Samples a</u> <u>Month</u>

State the number of samples testing positive for coliform. The standard is that no more than one sample per month may be positive.

If You Take 40 or More Samples a Month

State the percentage of samples testing positive for coliform. The standard is that no more than 5.0 percent of samples may test positive each month.

Corrective Action

In your notice, describe corrective actions you are taking. If you know what is causing the coliform problem, explain this in the notice. Listed below are some steps commonly taken by water systems with a total coliform violation. Use one or more of the following actions, if appropriate, or develop your own:

- "We are chlorinating and flushing the water system."
- "We are increasing sampling for coliform bacteria."
- "We are investigating the source of contamination."
- "We are repairing the wellhead seal."
- "We are repairing the storage tank."
- "We will inform you when additional samples show no coliform bacteria."

After Issuing the Notice

Send a copy of each type of notice and a certification that you have met all the public notice requirements to the Department within ten days after you issue the notice [64451(d)]. You should also issue a follow-up notice in addition to meeting any repeat notice requirements the Department sets.

It is recommended that you notify health professionals in the area of the violation. People may call their doctors with questions about how the violation may affect their health, and the doctors should have the information they need to respond appropriately.

It is a good idea to issue a "problem corrected" notice when the violation is resolved.

APPENDIX 1. NOTIFICATION TEMPLATE

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este informe contiene información muy importante sobre su agua potable.

Tradúzcalo o hable con alguien que lo entienda bien.

Dan R. Costa Inc. Water System Has Levels of Coliform Bacteria Above the Drinking Water Standard During June, 2018

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what you should do, what happened, and what we are doing to correct this situation.

We routinely monitor for the presence of drinking water contaminants. We took nine (9) samples to test for the presence of coliform bacteria during June, 2018. Nine (9) of those samples showed the presence of total coliform bacteria. The standard is that no more than one sample per month may show the presence of coliform bacteria.

What should I do?

Please fax completed form to: (209) 468-0333, Attn: SPWS Program.

- You do not need to boil your water or take other corrective actions. If you have other health issues concerning the consumption of this water, you may wish to consult your doctor.
- **This is not an emergency**. If it had been, you would have been notified immediately. Total coliform bacteria are generally not harmful themselves. Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
- Usually, coliforms are a sign that there could be a problem with the treatment or distribution system (pipes).
 Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or *E. coli*, are present. We did not find any of these bacteria in our subsequent testing. If we had, we would have notified you immediately. However, we are still finding coliforms in the drinking water.
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These
 people should seek advice about drinking water from their health care providers. General guidelines on ways to
 lessen the risk of infection by microbes are available from U.S. EPA's Safe Drinking Water Hotline at 1(800)
 426-4791.

What happened? What is being done? We inspected the well, storage tanks and water lines, which revealed:

	We will inform	m you when our sampling shows that
no bacteria are present. We anticipate resolving the probl	em within	For more information,
please contact	at	or
Please share this information with all the other people received this notice directly (for example, people in a can do this by posting this public notice in a public plant.	partments, nursing homes	s, schools, and businesses). You
Secondary Notification Requirements : Upon receipt of following notification must be given within 10 days [Health	notification from a person or and Safety Code Section 11	perating a public water system, the [6450(g)]:
 SCHOOLS: Must notify school employees, students, a RESIDENTIAL RENTAL PROPERTY OWNERS OR M tenants. 		
 BUSINESS PROPERTY OWNERS, MANAGERS, OR property. 	OPERATORS: Must notify 6	employees of businesses located on the
I (We) declare under penalty of perjury that the statements of taken to notify the users of this water system are in compli Maximum Contaminant Level for Total Coliform bacteria.	on this application are corrections are corrections are with California Code o	et to my (our) knowledge and the actions f Regulations (CCR), for exceeding the
This notice is being sent to you by	Signatur	e:

APPENDIX 2. COMPLIANCE TEMPLATE

Citation Number: 01_69 18C 024

Name of Water System: Dan R. Costa Inc.

System Number: 3902183

Certification

I certify tha	t the us	sers	of the	water	suppl	lied by	/ this	water	systen	n were	notified	of	the
bacteriologic	al violat	ion (of Califo	ornia C	ode o	f Reg	ulations	s, Title	22, S	ection	64426.1	for	the
compliance	period	of	June,	2018	and	that	public	notif	ication	was	complet	ed	on
	compliance period of June, 20 (date completed)												
Signatur	e of Wat	er Sy	ystem R	eprese	ntative			ē. <u> </u>		Date			

Attach a copy of the public notice distributed to the water system's customers

THIS FORM MUST BE COMPLETED AND RETURNED TO THE EHD, SPWS PROGRAM, NO LATER THAN July 23, 2018

Disclosure: Be advised that the California Health and Safety Code, Sections 116725 and 116730 state that any person who knowingly makes any false statement on any report or document submitted for the purpose of compliance with the Safe Drinking Water Act may be liable for, respectively, a civil penalty not to exceed five thousand dollars (\$5,000) for each separate violation or, for continuing violations, for each day that violation continues, or be punished by a fine of not more than \$25,000 for each day of violation, or by imprisonment in the county jail not to exceed one year, or by both the fine and imprisonment.

Please fax completed form to: (209) 468-0333, Attn: SPWS Program



June 28, 2018

STK1838947:1-5 Coliform Bacteria Analysis

Customer ID

: 3016726

1269 Spring Creek Dr.

Dan R. Costa Inc. Water System

System Number: 3902183

Ripon, CA. 95366

Project Name

: Water Monitoring

Analytical Results

ID	Sample Description	Total	Fecal	E. Coli	Units	Method	Prep	Footnote
1	HB at Propane Tank	13.7 Present		<1.0 Absent	MPN/100ml	SM 9223B	Quanti Tray 18	
2	HB at Propane Tank	13.7 Present		<1.0 Absent	MPN/100ml	SM 9223B	Quanti Tray 18	
3	Breakroom H/B	12.4 Present	3	<1.0 Absent	MPN/100ml	SM 9223B	Quanti Tray 18	
4	Mobile Home #12	34.4 Present		<1.0 Absent	MPN/100m1	SM 9223B	Quanti Tray 18	
5	Well 1	20.7 Present		<1.0 Absent	MPN/100ml	SM 9223B	Quanti Tray 18	

N/R Not Required

MPN Most Probable Number

A/P Absence/Presence

The sample(s) listed below failed drinking water standards for Total and/or Fecal Coliform and/or E. Coli as listed;

STK1838947-001 HB at Propane Tank: Total Coliform - Failure STK1838947-002 HB at Propane Tank: Total Coliform - Failure STK1838947-003 Breakroom H/B: Total Coliform - Failure STK1838947-004 Mobile Home #12: Total Coliform - Failure

STK1838947-005 Well 1: Total Coliform - Failure

Sample Handling Information

ID	Sample Number	System Number	Sample Type/Reason	Sampler	Employed By	Sampled
1	STK1838947-001	3902183	System-Routine	Justin/Will	FGL Environmental	2018-06-26 10:38
2	STK1838947-002	3902183	System-Routine	Justin/Will	FGL Environmental	2018-06-26 10:40
3	STK1838947-003	3902183	System-Routine	Justin/Will	FGL Environmental	2018-06-26 10:45
4	STK1838947-004	3902183	System-Routine	Justin/Will	FGL Environmental	2018-06-26 10:50
5	STK1838947-005	3902183-001	Source-Routine	Justin/Will	FGL Environmental	2018-06-26 10:35

Field Analysis/QA Information

_	V C										
ID	Sample Description	Cl Total/Free mg/l	Temp	Analysis Started	Analysis Completed	Contact	Contacted				
1	HB at Propane Tank	/ND		2018-06-26 15:35 LSM	2018-06-27 10:04 LSM	QS-Janaine Conley	2018-06-27 10:38				
2	HB at Propane Tank	/			2018-06-27 10:04 LSM						
3	Breakroom H/B	/ND			2018-06-27 10:04 LSM						
4	Mobile Home #12	/ND		2018-06-26 15:36 LSM	2018-06-27 10:04 LSM	QS-Janaine Conley	2018-06-27 10:38				
5	Well 1	ND/		2018-06-26 15:36 LSM							

Analyses were performed at the FGL Stockton Laboratory using Standard Methods 20th edition. If you have any questions regarding your results, please call. The FGL Stockton Laboratory is certified by California ELAP #1563 and accredited to ISO/IEC 17025:2005 by PJLA certificate #75605, Testing.

Prepared By: SMH cc:SJCEH

Reviewed and Kelly A. Dunnahoo, B.S. @

Digitally signed by Kelly A. Dunnahoo, B.S. Title: Laboratory Director Date: 2018-07-05

1 of 1



June 29, 2018

STK1839135:1-4 Coliform Bacteria Analysis

Customer ID : 3016726

Dan R. Costa Inc. Water System

System Number: 3902183

1269 Spring Creek Dr. Ripon, CA. 95366

Project Name : Dan R. Costa WS

Analytical Results

ID	Sample Description	Total	Fecal	E. Coli	Units	Method	Prep	Footnote
1	Well 1	83.1 Present	<u>(</u>	<1.0 Absent	MPN/100ml	SM 9223B	Quanti Tray 18	
	HB at Propane Tank	109.1 Present		<1.0 Absent	MPN/100ml	SM 9223B	Quanti Tray 18	
3	Mobile Home #12	62.4 Present	X555	<1.0 Absent	MPN/100ml	SM 9223B	Quanti Tray 18	
4	Breakroom H/B	62.4 Present		<1.0 Absent	MPN/100ml	SM 9223B	Quanti Tray 18	

N/R Not Required

MPN Most Probable Number

A/P Absence/Presence

The sample(s) listed below failed drinking water standards for Total and/or Fecal Coliform and/or E. Coli as listed:

STK1839135-001 Well 1: Total Coliform - Failure

STK1839135-002 HB at Propane Tank: Total Coliform - Failure STK1839135-003 Mobile Home #12: Total Coliform - Failure STK1839135-004 Breakroom H/B: Total Coliform - Failure

Sample Handling Information

ID	Sample Number	System Number	Sample Type/Reason	Sampler	Employed By	Sampled
1	STK1839135-001	3902183-001	Source-Repeat	Joe Burnett	Quality Service	2018-06-28 08:25
2	STK1839135-002	3902183	System-Repeat	Joe Burnett	Quality Service	2018-06-28 08:37
3	STK1839135-003	3902183	System-Repeat	Joe Burnett	Quality Service	2018-06-28 08:58
4	STK1839135-004	3902183	System-Repeat	Joe Burnett	Quality Service	2018-06-28 09:15

Field Analysis/QA Information

ID	Sample Description	Cl Total/Free mg/l	Temp	Analysis Started	Analysis Completed	Contact	Contacted
1	Well 1	ND/		2018-06-28 13:49 LSM	2018-06-29 10:01 LSM	QS-Janaine Conley	2018-06-29 10:27
2	HB at Propane Tank	/ND			2018-06-29 10:01 LSM		
3	Mobile Home #12	/n		2018-06-28 13:49 LSM	2018-06-29 10:01 LSM	QS-Janaine Conley	2018-06-29 10:27
4	Breakroom H/B	/ND		2018-06-28 13:49 LSM	2018-06-29 10:01 LSM	QS-Janaine Conley	2018-06-29 10:27

Analyses were performed at the FGL Stockton Laboratory using Standard Methods 20th edition. If you have any questions regarding your results, please call. The FGL Stockton Laboratory is certified by California ELAP #1563 and accredited to ISO/IEC 17025:2005 by PJLA certificate #75605, Testing.

Prepared By: SMH

cc:SJCEH

Reviewed and Annroved Bv Kelly A. Dunnahoo, B.S. Tille: Laboratory Director Date: 2018-7-05 Digitally signed by Kelly A. Dunnahoo, B.S.

1 of 1

WATER SUPPLY WELL CYCLE TEST FOR BACTERIOLOGICAL CONTAMINATION

When a water supply well is suspected to be a possible source of bacteriological contamination in a domestic water system the well must be investigated. The cycle test is an effective method of evaluating the potential for the well to produce bacteriologically contaminated water.

The following procedure is considered to be an effective test for evaluation of the well. The well should be inactive for a minimum of ½ hour or longer before the start of the test, to allow the well to return to a static condition. For best results the well should discharge to waste, or if this is not possible, the discharge should be such that the well will run continuously for the 30 minute duration of the test. Have on hand an adequate supply of sample containers and identification tags.

• Open the discharge line and turn the pump on.

Collect bacteriological samples at approximately:

No. 1 first water out of discharge

No. 4 at 15 minutes

No. 2 at 1 minute

No. 5 at 30 minutes

No. 3 at 5 minutes

If the cycle test procedure is being done in follow-up to a previous coliform-positive sample from the well, the above samples should be analyzed by one of the methods listed below or a comparable method that would allow a determination of the density or enumeration of coliform present. If any of the cycle test samples are positive, the well should be disinfected and a follow-up cycle test performed by a method that would allow a determination of the density or enumeration of coliform present.

BACTERIOLOGICAL LABORATORY TEST PROCEDURES

Benefits and Disadvantages

Colilert Quanti-Tray test method: (Uses 100 ml sample)

Benefits: Determines degr

Determines degree of contamination with a MPN result (Most Probable Number)

Gives total coliform and E. coli results

Disadvantages:

More Expensive

Multiple Tube test method: (Uses 100 ml sample divided to ten 10 ml tubes)

Benefits:

Determines degree of contamination with a MPN result (Most Probable Number)

Disadvantages:

More expensive

NOTE: For either of the above methods, time for test completion depends upon media used.

Defined substrate medias yield faster results, 18 to 48 hours (varies with brand of media)

Fermentation media takes 48 to 96 hours for results.

Membrane Filter (Uses 100 ml sample)

Benefits:

Results in 24 hours

Relatively inexpensive

Disadvantages:

Can be difficult to filter adequate size of sample

Colonies of non-coliform bacteria can obscure coliform bacteria thus nullifying

results and requiring re-testing.

APPENDIX 3. POSITIVE TOTAL COLIFORM INVESTIGATION

This form is intended to assist public water systems in providing the information required by California Code of Regulations, Title 22, Section 64426(b). Its use is not required and the contents may be modified. An electronic copy is available at:

http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Lawbook.shtml

ADMINISTRATIVE INFORMATION

Entity Name: PWSID NUMBER: System Type:	ne		Syste	System Address & Email	& Email	Telephone Number
Operator in Responsible Charge (ORC)						
Person that collected TC samples if different than ORC						
System Owner						
Certified Laboratory for Microbiological Analyses						
Date Investigation Completed:						
Month(s) of Total Coliform MCL Failure:						
	INVESTIGATION DETAILS	DETAILS	10			
SOURCE	(name)		WELL (name)	WELL (name)	WELL (name)	COMMENTS (attach additional pages if needed)
1. Inspect each well head for physical defects and report			(21111111111111111111111111111111111111	(allialle)	(2111811)	
a. Is raw water sample tap upstream from point of disinfection?						
b. Is wellhead vent pipe screened?						
c. Is wellhead seal watertight?						
d. Is well head located in pit or is any piping from the wellhead submerged?	ubmerged?					
e. Does the ground surface slope towards well head?						
f. Is there evidence of standing water near the wellhead?						
g. Are there any connections to the raw water piping that could be	e cross					
connections? (describe all connections in comments)						
h. Is the wellhead secured to prevent unauthorized access?						
 i. To what treatment plant (name) does this well pump? 						
 j. How often are raw water total coliform (TC) samples taken and a 	analyzed?					
k. Provide the date and result of the last TC test at this location						
2. Inspect and review records for surface water source (if applicable)	(e					
a. Have there been any events in the watershed or near the intake that might have contributed to TC+ or EC+ results? (Describe)	ke that might					
TREATMENT	PLA	PLANT (NAME)	PLANT (NAME)	PLANT	PLANT	COMMENTS
1. If you provide continuous chlorination treatment was there any equipment failure?			1	((711171)	
a Did the distribution system maintain chlorine residual?						
b. Was emergency chlorination initiated? If ves. for how long?						
c. Did the distribution system lose chlorine residual?						
2. If you do not provide routine chlorination, was emergency chlorination initiated? If Yes, when?	nation initiated?					
3. Inspect each point where disinfectant is added and report						
a. Is the disinfectant feed pump feeding disinfectant?						
b. What is the feed rate of disinfectant in ml/minute?						

APPENDIX 3. POSITIVE TOTAL COLIFORM INVESTIGATION

This form is intended to assist public water systems in providing the information required by California Code of Regulations, Title 22, Section 64426(b). Its use is not required and the contents may be modified. An electronic copy is available at:

http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Lawbook.shtml

TREATMENT	PLANT (NAME)	PLANT (NAME)	PLANT (NAME)	PLANT	COMMENTS	ENTS
c. What is the concentration of the disinfectant solution being fed? (percent or mg/l of chlorine as HOCI)						
d. By what method was the concentration of solution determined? (ex: measured, manufacturer's literature)						
e. What is the age (days) of the disinfectant solution currently being used at this treatment location?						
f. What is the raw water flow rate at the point where disinfectant is added in gallons per minute?						
g. What is the total chlorine residual measured immediately downstream from the point of application?						
h. What is the free chlorine residual measured immediately downstream from the point of application?						
i. What is the contact time in minutes from the point of disinfectant application to the first customer?						
SAMPLE SITE EVALUATION (Complete for all TC+ or EC+ findings)	Rout	Routine Site	Upstream Site	m Site	Downstream	Sample 4
1. What is the height of the sample tap above grade? (inches)	5	5			פונס	(specify)
2. Is the sample tap located in an exterior location or is it protected by an enclosure?						
3. Is the sample tap threaded, have a swing arm (kitchen sink) or an aerator (sinks)?						
4. Is the sample tap in good condition, free of leaks around the stem or packing?						
5. Can the sample tap be adjusted to the point where a good laminar flow can be achieved without excessive splash?						
6. Is the sample tap and areas around the sample tap clean and dry (free of animal droppings other contaminants or spray irrigation systems)?						
7 Is the area around the sample tap free of excessive vegetation or other impediments to sample collection?						
8. Describe how the tap was treated in preparation for sample collection (ran water, swabbed with disinfectant, flamed, etc.).						
9. Is this sample tap designated on the sampling plan submitted with this information request?						
10. What were the weather conditions at the time of the positive sample (rainy, windy, and sunny)?						

APPENDIX 3. POSITIVE TOTAL COLIFORM INVESTIGATION

This form is intended to assist public water systems in providing the information required by California Code of Regulations, Title 22, Section 64426(b). Its use is not required and the contents may be modified. An electronic copy is available at:

_	•
E	ı
n	ı
S	ı
X.	ı
8	ı
ğ	ı
3	ı
Lai	
7	
6	
at	
3	
6	١
7	
Ē	
9	
S	
E	
à	
X	
Ø	
al	
3	
2	
Z	
2	
히	
Ž	
0	
o.	
b.ca.g	
2	
S	
3	
S	
>	
2	
5	
>	
0	
Ħ	

	1111	222	TANK	TANK	COMMENTS
	(name)	(name)	(name)	(name)	
1. Is each tank locked to prevent unauthorized access?					
2. Are all vents of each tank screened down-turned to prevent dust and dirt from entering the tank?					
3. Is the overflow on each tank screened?					
4. Are there any unsealed openings in the tank such as access doors, water level indicators hatches, etc.?					
5. Is the roof/cover of the tank sealed and free of any leaks?					
6. Is the tank above ground or buried?					
 a. If buried or partially buried, are there provisions to direct surface water away from the site. 					
b. Has the interior of the tank been inspected to identify any sanitary defects, such as root intrusion?					
8. Does the tank "float" on the distribution system or are there separate inlet and outlet lines?	2)				
9. What is the measured chlorine residual (total/free) of the water exiting the storage tank today ?					
10. What is the volume of the storage tank in gallons?					
11. Is the tank baffled?					
12. Prior to the TC+ or EC+, what was the previous date item #1-7 were checked and documented?					

	SYSTEM RESPONSES
1. What is the minimum pressure you are maintaining in the distribution system?	
2. Did pressure in the distribution system drop to less than 5 psi prior to positive bacti?	
3. Has the distribution system been worked on within the last week? (taps, hydrant flushing,	
main breaks, mainline extensions, etc.) If yes, provide details.	
4. Are there any signs of excavations near your distribution system not under the direct	
control of your maintenance staff?	
5. Did you inspect your distribution system to check for mainline leaks? Do you or did you	
have a mainline leak?	
6. If there was a mainline leak, when was it repaired?	
7. On what date was the distribution system last flushed?	
8. Is there a written flushing procedure you can provide for our review?	
9. Do you have an active cross-connection control program?	
10. What is name & phone number of your Cross-Connection Control Program Coordinator?	
11. Is the review and testing of backflow prevention devices current?	
12. On what date was the last physical survey of the system done to identify cross-	
connections?	

APPENDIX 3. POSITIVE TOTAL COLIFORM INVESTIGATION

This form is intended to assist public water systems in providing the information required by California Code of Regulations, Title 22, Section 64426(b). Its use is not required and the contents may be modified. An electronic copy is available at: http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Lawbook.shtml

BOOSTER STATION	Response
1. Do you have a booster pump? How many?	
2. Do you have a standby booster pump if the main pump fails?	
3. Prior to bacteriological quality problems, did your booster pump fail?	
4. Do you notice standing water, leakage at the booster station?	
GENERAL OPERATIONS:	Response
1. Where there any power outages that affected water system facilities during the 30 days prior to the TC+ or EC + findings?	
2. Were there any main breaks, water outages, or low pressure reported in the service area where TC+ or EC+ samples were located	
3. Does the system have backup power or elevated storage?	
4. During or soon after bacteriological quality problems, did you receive any complaints of any customers' illness suspected of being waterborne? How many?	
5. What were the symptoms of illness if you received complaints about customers being sick?	

ADDITIONAL INFORMATION THAT MAY BE SUBMITTED WITH RESPONSES TO THE ABOVE QUESTIONS

- 1. Sketch of System showing all sources, treatment locations, storage tanks, microbiological sampling sites and general layout of the distribution system including the location of all hazardous connections such as the wastewater treatment facility.
- 2. A set of photographs of the well, pressure tanks, and storage tanks in the system may be submitted if they would show that the contamination is directly related and changes have been made since the last inspection by the Water Board
 - 3. Name, certification level and certificate number of the Operator in Responsible Charge.
- 4. Copy of the last cross connection survey performed that identifies the location of all unprotected cross connections.
- 5. Updated source water assessment(s) (DWSAP) if there have been changes to well construction or potentially contaminating activities (PCA list) since last inspection.

SUMMARY: BASED ON THE RESULTS OF YOUR INVESTIGATION AND ANY OTHER INFORMATION AT YOUR DISPOSAL, WHAT

DO YOU BELIEVE TO BE THE CAUSE OF THE POSITIVE TOTAL COLIFORM SAMPLES FROM THE PUBLIC WATER SYSTEM?

CERTIFICATION: I CERTIFY UNDER PENALTY OF LAW, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THAT THE STATEMENTS AND INFORMATION CONTAINED IN THIS APPENDIX ARE TRUE, ACCURATE AND COMPLETE

DATE:

NAME:

TITLE:

Please fax completed form to: (209) 464-0208, Attn: SPWS Program